

IN THE CLAIMS

1. (Canceled)

2. (Currently Amended) A ~~through~~ socket, comprising:

a socket body arranged to load first and second memory modules in the same direction while the socket body remains detached from a circuit board;

a first conductor arranged to connect a contact on a first surface of the first memory module to a contact on a first surface of the second memory module; and

a second conductor arranged to connect a contact on a second surface of the first memory module to a contact on a second surface of the second memory module.

3. (Canceled)

4. (Previously Presented) A through socket adapted to load a plurality of memory modules, comprising:

a through socket body arranged to load a first memory module, a second memory module, and a third memory module, said first, second and third memory modules being loaded in a base socket mounted to a board;

a first conductor arranged to connect a contact on a first surface of the first memory module to a contact on a first surface of the second memory module;

a second conductor arranged to connect a contact on a second surface of the second memory module to a contact on the first surface of the third memory module; and

a third conductor arranged to connect a contact on a second surface of the first memory module to a contact on a second surface of the third memory module;

wherein the through socket is structured to load said memory modules either above or to the side of said base socket mounted on said board.

5-7. (Canceled)

8-9. (Canceled)

10-25. (Canceled)

26. (Currently Amended) A ~~through~~ memory module socket, comprising:

a socket body arranged to load first and second memory modules in the same direction while said socket body remains detached from a circuit board;
a first conductor arranged to connect a plurality of adjacent contacts on a first surface of the first memory module to a plurality of adjacent contacts on a first surface of the second memory module; and
a second conductor arranged to connect a plurality of adjacent contacts on a second surface of the first memory module to a plurality of adjacent contacts on a second surface of the second memory module.

27. (Currently Amended) The ~~through~~ socket of claim 26, wherein the socket body is arranged to load the first and second memory modules in opposite directions.

28. (Canceled)

29. (Currently Amended) The ~~turn-around~~ socket of claim 30, ~~26~~ wherein the socket body is arranged to load a second memory module in the same direction, and further comprising a second conductor arranged to connect a plurality of adjacent contacts on a first surface of the second memory module to a plurality of adjacent contacts on a second surface of the second memory module.

30. (Canceled)

31. (Canceled)

32. (Withdrawn) A multi-socket memory system, comprising:

a base socket arranged to load a first memory module having first and second surfaces, said base socket including:

- (i) a first conductor arranged to connect a plurality of adjacent contacts on the first surface of the first memory module, and
- (ii) a second conductor arranged to connect a plurality of adjacent contacts on the second surface of the first memory module;

a through socket arranged to load said first memory module and a second memory module having first and second surfaces, said through socket including:

(i) a first conductor arranged to connect to a plurality of adjacent contacts on the first surface of the first memory module to a plurality of adjacent contacts on the first surface of the second memory module, and

(ii) a second conductor arranged to connect a plurality of adjacent contacts on the second surface of the first memory module to a plurality of adjacent contacts on the second surface of the second memory module; and

a turn-around socket arranged to load a second memory module and including a conductor arranged to connect to a plurality of adjacent contacts on the first surface of the second memory module and a plurality of adjacent contacts on the second surface of the second memory module.

33. (Withdrawn) The multi-socket system of claim 32 wherein:

the base socket is attached to a board and structured to load a first memory module orthogonal to said board; and

the through socket is arranged to load said first memory module and a second memory module in a loading plane substantially orthogonal to said board.

34. (Withdrawn) The multi-socket system of claim 32 wherein:

the base socket is attached to a board and structured to load a first memory module substantially parallel to said board; and

the through socket is arranged to load said first memory module and a second memory module in a loading plane substantially parallel to said board.

35. (Withdrawn) The multi-socket system of claim 32 wherein:

the base socket is attached to a board and structured to load a first memory module substantially parallel to said board; and

the through socket is arranged to load said first memory module and a second memory module in a substantially stacked arrangement.

36. (Withdrawn) A multi-socket memory system structured to load N memory modules, comprising:

a base socket arranged to load a first memory module having first and second surfaces, said base socket including:

(i) a first conductor arranged to connect a plurality of adjacent contacts on the first surface of the first memory module, and

(ii) a second conductor arranged to connect a plurality of adjacent contacts on the second surface of the first memory module;

a plurality of through sockets, each through socket arranged to load at least two joined memory modules each having first and second surfaces, each of said plurality of through sockets including:

(i) a first conductor arranged to connect to a plurality of adjacent contacts on the first surface of the at least first joined memory module to a plurality of adjacent contacts on the first surface of the at least second joined memory module, and

(ii) a second conductor arranged to connect a plurality of adjacent contacts on the second surface of the at least first joined memory module to a plurality of adjacent contacts on the second surface of the at least second joined memory module; and

a turn-around socket arranged to load Nth memory module and including a first conductor arranged to connect to a plurality of adjacent contacts on the first surface of Nth memory module and to a plurality of adjacent contacts on the second surface of Nth memory module.

37. (Withdrawn) The multi-socket system of claim 36 wherein:

the base socket is attached to a board and structured to load a first memory module orthogonal to said board; and

the plurality of through sockets is arranged to load first joined memory module and second joined memory module in a loading plane substantially orthogonal to said board.

38. (Withdrawn) The multi-socket system of claim 36 wherein:

the base socket is attached to a board and structured to load first memory module substantially parallel to said board; and

at least one of said plurality of through sockets is arranged to load first joined memory module and second joined memory module in a loading plane substantially parallel to said board.

39. (Withdrawn) The multi-socket system of claim 36 wherein:

the base socket is attached to a board and structured to load a first memory module substantially parallel to said board; and

at least one of said plurality of through sockets is arranged to load first joined memory module and joined second memory module in a substantially stacked arrangement.

40. (Withdrawn) A multi-socket memory system, comprising:

base socket arranged to load a first memory module having first and second surfaces, said base socket including:

(i) a first conductor arranged to connect a plurality of adjacent contacts on the first surface of the first memory module, and

(ii) a second conductor arranged to connect a plurality of adjacent contacts on the second surface of the first memory module;

first through socket arranged to load first and second memory modules each having first and second surfaces, said first through socket including:

(i) a first conductor arranged to connect to a plurality of adjacent contacts on the first surface of first memory module to a plurality of adjacent contacts on the first surface of second memory module, and

(ii) a second conductor arranged to connect a plurality of adjacent contacts on the second surface of first memory module to a plurality of adjacent contacts on the second surface of second memory module;

second through socket arranged to load at second, third and fourth memory modules each having first and second surfaces, said second through socket including:

(i) a first conductor arranged to connect to a plurality of adjacent contacts on the first surface of second memory module to a plurality of adjacent contacts on the first surface of third memory module, and

(ii) a second conductor arranged to connect a plurality of adjacent contacts on the second surface of second memory module to a plurality of adjacent contacts on the first surface of fourth third memory module, and

(iii) a third conductor arranged to connect to a plurality of adjacent contacts on the second surface of third memory module to a plurality of adjacent contacts on the second surface of fourth memory module; and

turn-around socket arranged to load third and fourth memory modules and including:

(i) a first conductor arranged to connect to a plurality of adjacent contacts on the first surface of third memory module to a plurality of adjacent contacts on the second surface of third memory module, and

(ii) a second conductor arranged to connect a plurality of adjacent contacts on the first surface of fourth memory module to a plurality of adjacent contacts on the second surface of fourth memory module.

41. (Withdrawn) The multi-socket system of claim 40 wherein:

the base socket is attached to a board and structured to load first memory module substantially parallel to said board; and

first and second through sockets are arranged to load second, third and fourth memory modules in a substantially stacked arrangement.